

**ATTACHMENT I**



## Human Health Hazards Vermiculite Insulation

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### What is vermiculite?

Vermiculite is a naturally occurring mineral used in construction, insulation and gardening products. It looks like shiny, small pieces of popcorn (as pictured above). Vermiculite came from mines in Libby, Montana (closed in 1990) as well as other mines in the U.S. and other countries. Vermiculite is still mined and distributed for a number of uses, including insulation.

### Why should I be concerned about vermiculite insulation?

Much of the Libby vermiculite was used as attic insulation. It was sold from 1963 to 1984 under the product name Zonolite. The Environmental Protection Agency (EPA) estimated in 1985 that 940,000 American homes contained, or had contained, Zonolite attic insulation.

Over 70% of vermiculite ore mined in the world came from Libby. The ore from this mine also included a natural deposit of amphibole asbestos. Unfortunately, much of the vermiculite from Libby was contaminated with amphibole/tremolite asbestos. The asbestos fibers are invisible to the eye and can only be professionally detected. Homeowners should consider the following:

- Vermiculite used for residential insulation may contain asbestos.
- If you are unsure whether the insulation in your home contains vermiculite, avoid disturbing it until either you or a professional can confirm that it is vermiculite.
- Use personal protection (see other side) when doing minor home projects; seek professional advice for large projects.

### If I have vermiculite insulation in my home, how can it be tested?

If you have vermiculite insulation, it can be tested for asbestos. You can hire a certified asbestos inspector (call the Division of Public Health Asbestos and Lead Section for information about contractors and labs (608) 261-6876), or collect the sample yourself. If you collect the sample yourself, follow these precautions:

- A teaspoon is a good tool to collect a small sample. Put one teaspoon sized sample into a small plastic container with a tight fitting lid (e.g. 35 mm film canister).
- Wear a HEPA respirator (available at most major home improvement stores, dust masks are not sufficient). Use a spray bottle to dampen the sample area.
- Disturb the material as little as possible; only a small amount is needed for analysis.
- Wash your hands and wipe the outside of the container off with a wet disposable towel.
- Include your name, address and telephone number when mailing your sample. Indicate you want the sample analyzed for asbestos.

### What if the insulation is found to contain asbestos?

There are several factors to consider in planning your response. For example, how much asbestos was found in the sample, the amount and extent of vermiculite insulation installed in the house, and how accessible is it. You may also consider testing the indoor air of your home to determine if asbestos is being released into your living area.

### **If asbestos is found, should it be removed?**

Homeowners may wish to consider the following points:

- First, due to the physical characteristics of vermiculite and where it may be installed, the potential for contamination of the air throughout your home may be low.
- Second, if the insulation will not be disturbed and is not contaminating the home environment (e.g. it's sealed behind tight walls, floors, or isolated in an unfinished attic, which is vented outside) it may be best to leave it alone. Furthermore, signs should be posted inside the attic saying "*Cancer Hazard: Insulation contains asbestos, do not disturb or create dust.*"
- Last, if home renovations involve removal of walls or where vermiculite insulation is located, extra precaution is necessary and removal prior to renovation may be warranted.

### **What can I do to prevent asbestos exposure?**

The following steps can help minimize asbestos exposure during *very minor* home renovations (such as installing a ceiling light, bathroom fan, or computer cable):

- Wear gloves, eye protection and a HEPA respirator (not just a dust mask).
- Tape off rooms with plastic sheeting to prevent contaminating other areas of a home; keep the vermiculite damp to prevent spreading dust.
- Keep windows open for good ventilation and wipe up all dust and debris using wet cleaning methods (wet-wiping and wet mopping).
- Do not use a home/shop vacuum to clean up dust or debris.
- If renovations involve extensive removal or exposure to asbestos containing insulation, it's best to hire a professional, state-certified asbestos removal contractor.

### **What are the asbestos health risks?**

Asbestos fibers must be breathed in to cause disease. Disturbing vermiculite insulation or dust containing asbestos will result in exposure unless precautions are taken. The health risks vary, depending on the amount and frequency of exposure.

Those at highest risk would be long-term vermiculite processing plant employees or workers regularly installing or handling in-place vermiculite products without lung protection. Those at lower risk include people who occasionally disturbed attic insulation during activity in the attic or when doing minor "handyman" jobs. The lowest risk would be for people who live in a home where the vermiculite insulation is isolated and they have had no direct contact with the materials.

Asbestos-exposed workers, family members, and those living in the neighborhoods of asbestos plants have developed a rare type of lung cancer known as *mesothelioma*. Asbestos can also cause permanent lung damage known as *asbestosis*, which causes shortness of breath and increases the risk of serious lung infections.

### **For more information**

- Contact your local public health agency, or the Wisconsin Division of Public Health (DPH), for health related questions (608) 266-1120; for a list of state-certified contractors, consultants and labs, call the DPH Asbestos and Lead section, (608) 261-6876.
- Internet: [www.epa.gov](http://www.epa.gov) (EPA); [www.atsdr.cdc.gov](http://www.atsdr.cdc.gov) (Agency for Toxic Substances & Disease Registry).

Prepared by the Wisconsin Division of Public Health, with funds from the Agency  
for Toxic Substances and Disease Registry, Public Health Service, USDHHS.  
(PPH 45007 11/2000)



**ATTACHMENT J**



## Environmental Health Programs Office of Environmental Health and Safety

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[Insulation](#)

Site Directory:

- [Indoor Air Quality Program](#)
- [EHS Home](#)
- [EHS Publications](#)
- [EHS Related Sites](#)
- [Find your local health department](#)
- [Learn more about Environmental Health Programs & Services](#)



Resources on

## Asbestos in Vermiculite Insulation

Asbestos in vermiculite insulation has become a recent national concern to a variety of federal agencies and to many citizens throughout the country. Vermiculite ore containing asbestos from the W.R. Grace and Company mine in Libby, Montana was processed, then marketed as Zonolite Attic Insulation from 1963 to 1984. Reportedly, this insulation was used in millions of homes and businesses nationwide, and in over 50,000 homes here in Washington State.

Vermiculite insulation has a layered structure and glittery, granular appearance. The granules are small about the size of a pencil eraser, and may have a silvery, gold, translucent or brownish cast. After years in the attic, however, the granules may darken to black or gray. Other insulation materials like fiberglass are pink, yellow, or white and have a texture like cotton candy. Cellulose and rock wool both appear gray in color. Cellulose has the texture of finely shredded newspaper, and rock wool of dense wool.

Washington State Department of Health shares the concerns of federal agencies and citizens regarding potential exposure to insulation containing asbestos by workers and residents. Asbestos has long been recognized as a human health hazard, and inhalation of the asbestos fibers should be avoided. If you suspect that your attic is insulated with vermiculite, the following resources will help you find answers to your questions regarding asbestos in vermiculite insulation.

### Who do I contact?

Your primary contact regarding asbestos in vermiculite and vermiculite products is EPA (U.S. Environmental Protection Agency), Region 10 at 1-800-424-4372.

### How do I know if my insulation contains asbestos?

If you suspect that you have vermiculite insulation in your home, we recommend that you don't disturb it. To determine whether your insulation contains asbestos, contact an asbestos consultant or laboratory listed in your Yellow Pages under "Asbestos Consulting and Testing." Ask for specific instructions on safely collecting insulation samples for testing and for interpretation of test results. In addition, numerous laboratories that conduct asbestos testing participate voluntarily in a national certification program, the [National Voluntary Laboratory Accreditation Program](#). This website lists laboratories located in your area.

### **I need to have my insulation removed, what should I do?**

If your insulation does contain asbestos, don't attempt to remove it yourself. Have a state-certified asbestos abatement contractor who is trained in removing asbestos safely do the job. On Washington State Department of Labor and Industries' website you can find a list of [Certified Asbestos Abatement Contractors](#).

### **Is my health at risk?**

If you are concerned about possible exposure to asbestos, consult with your health care provider. Health information about asbestos in insulation can be found at EPA's website, [Asbestos Contamination in Vermiculite](#) and ATSDR's (Agency for Toxic Substances and Disease Registry) website, [Questions and Answers Exposure to Asbestos in Insulation](#).

Should you need additional health information, please contact Tim Hardin of the Washington State Department of Health at (360) 236-3363 or [tim.hardin@doh.wa.gov](mailto:tim.hardin@doh.wa.gov).

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Last Update : 10/03/2002 02:16 PM

Send inquires about DOH and its programs to the [Health Consumer Assistance Office](#)

Comments or questions regarding this web site? Send mail to [Anne Duffy](#).

**ATTACHMENT K**



# Minnesota Department of Health

## Environmental Health in Minnesota

### Vermiculite Insulation

Vermiculite is a naturally occurring mineral compound that expands when wet. A member of the phyllosilicate group of minerals, it resembles mica in appearance. In its pure form, vermiculite is clean, odorless, nontoxic and sterile. Recent findings about vermiculite ore contaminated with tremolite asbestos have caused concern over possible health effects for workers and others who had long-term contact.



Vermiculite insulation in an attic.



Vermiculite insulation

Click images to enlarge.

- How does asbestos cause health problems?
- How do I know if there is vermiculite insulation in my home?
- What should I do if I have vermiculite attic insulation?
- Who can I contact for more information?

#### How does asbestos cause health problems?

For asbestos to cause harmful health effects, it must be present as a tiny fiber that could be inhaled or ingested. When disturbed, asbestos breaks down into fibers 1,200 times thinner than a human hair. If these fibers are inhaled, they become trapped in lung tissue or in tissue lining the lungs and cause scarring. Asbestos fibers can cause respiratory system and lung diseases, including cancer. There is no known safe level of asbestos exposure.

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#### How do I know if there is vermiculite insulation in my home?

Vermiculite attic insulation is a pebble-like, pour-in product and is usually light-brown, gray, or gold in color. It may have shiny flakes, and/or small accordion-like pieces (see photos above). You can also check for markings on the material or its packaging. One common brand was called Zonolite.

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#### What should I do if I have vermiculite attic insulation?

Leave it alone. If vermiculite insulation is disturbed, it may release asbestos fibers into the air. At this point the safest and easiest option for intact insulation is to leave it alone. If the insulation is exposed or spilling into living areas, immediate steps should be taken to seal the cracks. Although Minnesota law permits homeowners to remove small quantities of asbestos-containing material, the Minnesota Department of Health strongly recommends using a Minnesota-licensed asbestos contractor for the protection of your family's health. These contractors have access to removal and encapsulation (trapping) techniques



unavailable to homeowners. They will also perform air monitoring to determine if the indoor air meets acceptable standards at the completion of the project.

### **Who can I contact for more information?**

Minnesota Department of Health, Asbestos Unit: (651) 215-0900 or (800) 657-3908, press 0. For the Minnesota Relay Service, call (800) 627-3529.

### **Links —**

**EPA - Current Best Practices for Vermiculite Attic Insulation - May 2003**  
(<http://www.epa.gov/asbestos/insulation.html>)

**ATSDR - Vermiculite Consumer Products** (<http://www.atsdr.cdc.gov/NEWS/vermiculite051603.html>)

This information sheet was prepared in cooperation with the U.S. Agency for Toxic Substances and Disease Registry.

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Environmental Health Division**  
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Updated Friday, 23-May-03 08:42:32

**ATTACHMENT L**

# Environmental Fact Sheet



U.S. ENVIRONMENTAL PROTECTION AGENCY REGION 10

September 2000

## ASBESTOS IN ATTIC INSULATION

As a result of recent newspaper articles, the U.S. Environmental Protection Agency (EPA) office in Seattle has received a large number of phone calls from citizens concerned about asbestos-containing insulation in their attics. EPA is working hard to gather more information about attic insulation and other products containing vermiculite that may be contaminated with asbestos.

The following information provides a common sense approach to help you find out what kind of attic insulation you have and decide what to do if you have vermiculite attic insulation.

### **Background**

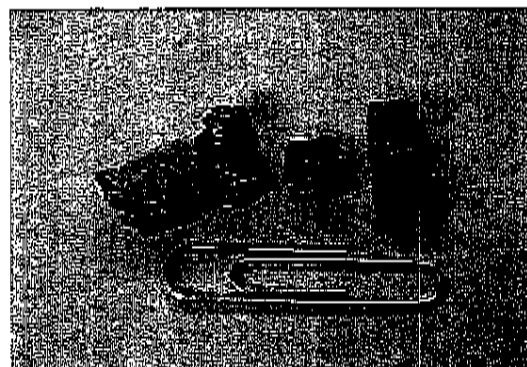
EPA believes that a number of manufacturers produced attic insulation from vermiculite. One mine in the United States produced over 70 percent of the world's vermiculite before the mine was closed in 1990. Ore from this mine is known to have asbestos contamination which contaminates any products from this ore.

### **Why is it a Problem?**

If disturbed, the asbestos fibers in vermiculite attic insulation may get into the air. These fibers can be inhaled and become trapped in the lungs and may cause diseases such as asbestosis, lung cancer, and mesothelioma. These diseases may show up many years after exposure to asbestos.

### **What Does it Look Like?**

Vermiculite is a mineral that is shaped like a small nugget, and varies in color from silver-gold to gray-brown (see picture at right). The asbestos fibers contained in vermiculite attic insulation are generally too small to be seen without magnification. Only a trained technician using careful microscopic examination can see asbestos fibers.



Pieces of Vermiculite Attic Insulation

### **What Should I Do if I Have it?**

Look at the insulation in your attic without disturbing it. If it appears you have vermiculite attic insulation in your attic, we recommend the following steps:



1. If you do not need to remodel or disturb the insulation, **LEAVE IT ALONE!** If it's sealed behind wallboards and floorboards or is isolated in an attic that is vented outside, the best approach is to keep it in place.
2. If you are concerned about asbestos contamination in the living quarters of your home, you can consider air monitoring. This will show if any asbestos has been or is being released from the insulation into the air in your home. The air monitoring must be done by trained professionals.
3. If you are planning to remodel or remove your insulation, have the insulation tested first.
  - A. EPA recommends using a trained and certified professional to conduct the tests. Use certified asbestos removal professionals to remove your vermiculite attic insulation using a "negative pressure enclosure" technique. This technique will prevent asbestos fibers and dust from escaping from your attic into the rest of your home. Using professionals is expensive. Do not attempt to do this yourself. You could spread asbestos fibers throughout your home, putting you and your family at risk of inhaling asbestos fibers.
  - B. After the vermiculite attic insulation is removed, you may want to consider having air monitoring tests done in your attic and throughout the living areas of your home. This is to ensure that the concentration of asbestos fibers in the home is low or not present.

### **How Do I Find a Trained and Certified Asbestos Removal Professional?**

A certified asbestos inspector will be able take samples of your insulation, provide you with information on the results, and advise you on what additional tests or options you might consider. Inspectors can be found in the Yellow Pages under "Asbestos Consulting and Testing" or "Asbestos Abatement". Ask the inspector to provide you with the name of the company that trained and certified him or her. Call that company to confirm whether a particular inspector has had the required training and has up-to-date accreditation. Companies that can test the air in your home will be found under the same listings.

### **Where Can I Get More Information?**

New information can be found on the hotline and websites below as it becomes available.

For current information on asbestos and health related information, contact EPA's TSCA Hotline at 1-202-554-1404, or visit EPA's Region 10 website at [www.epa.gov/R10earth](http://www.epa.gov/R10earth) (click on Index, then Asbestos).

Also visit the federal Agency for Toxic Substances and Disease Registry (ATSDR) website at [www.cdc.atsdr.gov](http://www.cdc.atsdr.gov), or the Washington State Department of Health at [www.doh.wa.gov/ehp/ts](http://www.doh.wa.gov/ehp/ts).

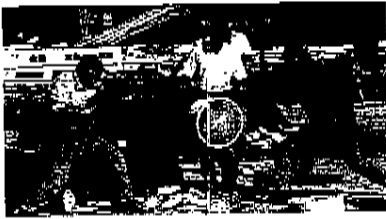
## **ATTACHMENT M**



# **Libby Asbestos Superfund Site: Community Information and Involvement for Libby Residents**



# Welcome to Libby!



Tucked away in the northwest corner of Montana, just 35 miles east of Idaho and 65 miles south of Canada, is the small western town of Libby. It sits in a picturesque valley carved by the Kootenai River, with the spectacular Cabinet Mountains to the south. Libby has a population of less than 2,900, but about 12,000 people live within a ten-mile radius. Libby is the Lincoln County seat, and its assets include clean water, beautiful scenery, and recreational opportunities such as fishing, hiking, hunting, boating, and skiing.

## Are You New to Libby?

Contact the EPA Information Center (293-6194) for the latest information on the work being done by the U.S. Environmental Protection Agency (EPA). The staff will answer your questions, or direct you to the appropriate resource. You can find out if your property has been screened for asbestos and if any cleanup work was done. Also, you can see samples of vermiculite in various forms, and you can pick up a number of helpful flyers and brochures.

Rest assured, Libby is a great place to live. The health effects seen today are primarily related to past exposures to miners and their families. EPA has cleaned up the major source areas around town. As the cleanup progresses, the remaining smaller source areas on private property will be taken care of. EPA's goal is to identify and remove all soil contaminated with asbestos. You can walk the streets without fear of asbestos exposure.

Until the cleanup is finished, any exposures to asbestos are likely to result from disturbance of vermiculite. So, learn what it looks like and where it is likely to be found - then leave it alone! **Keep reading for lots of helpful tips and information.**

Over the last decade, Libby residents became aware of mounting deaths (over 190) from asbestos-related disease in former mine and mill workers and their families. These diseases are often confused with emphysema or other ailments, so many more individuals may have died without being accurately diagnosed. As of 1999, over 300 people were known to have asbestos-related disease, and that number continues to rise. Some of these people had no known connection to the mine.

In November 1999, EPA in cooperation with the Agency for Toxic Substances and Disease Registry (ATSDR) and the Montana Department of Environmental Quality (DEQ) began an emergency response action to protect public health.

## Asbestos Contamination in Libby

Asbestos contamination in Libby is primarily related to historic activities at the W.R. Grace vermiculite mine north of town. Vermiculite ore from this mine is contaminated by asbestos, and Libby residents have been exposed to it in several ways:

- ✓ **Dust in the Mine and Processing Centers.** Workers at the Mine, Screening Plant, and Export Plant were continually exposed to asbestos dust, and they unwittingly brought that dust home, exposing their families to asbestos.
- ✓ **Airborne Dust.** The mill released large amounts of asbestos dust. In 1969 alone, the large stack released 24,000 pounds of dust a day (approximately 5,000 pounds of asbestos). Depending on wind conditions, much of this dust may have blown into Libby.
- ✓ **Vermiculite.** Residents took vermiculite home for use in attics and gardens. It was used as fill in many locations in town, including the school tracks and the ice rink, and large piles of vermiculite were common sights in Libby. Zonolite insulation was also sold commercially and many residents installed it in their homes, another dusty job.

**WELCOME!**  
**THE ABCs OF ASBESTOS**  
**ASBESTOS-RELATED HEALTH RISKS**  
**PHYSICAL AND MENTAL HEALTH RESOURCES**  
**DEALING WITH ASBESTOS IN YOUR HOME**  
**FINDING AN ASBESTOS SPECIALIST**  
**ASBESTOS SAMPLING AND ANALYSIS**  
**RISK ASSESSMENT**  
**EPA'S ASBESTOS CLEANUP ACTIVITIES**  
**CONTACTS AND RESOURCES**



## Asbestos and Vermiculite

Asbestos is made up of long, thin fibers that are strong and heat-resistant. This has led to its use in thousands of products (such as building materials and heat-resistant fabrics). The fibers do not dissolve or breakdown in any way. They can remain airborne for quite some time, but eventually settle into soil, sediment, or other materials (e.g. carpet).

*Amphibole asbestos* describes the mineral family that includes *Libby asbestos*. Amphibole asbestos fibers are generally straighter and break apart more easily than other asbestos fibers. They are also believed to be more toxic than fibers from other types of asbestos.

### Tremolite-Actinolite Series Asbestos

- ✓ This is the type of asbestos of concern in Libby. It is a distinct and relatively uncommon form of asbestos that is often referred to as *tremolite*, *Libby amphibole*, or *Libby asbestos*.
- ✓ It is not a commercially viable mineral, but a contaminant in the vermiculite ore from the Libby mine.
- ✓ Individual fibers are too small to be seen without a microscope.
- ✓ Asbestos ore is occasionally seen locally, usually as decorative landscape rock or driveway material.
- ✓ The ore is waxy-silky white to greenish white, with fibrous strands running across the surface.

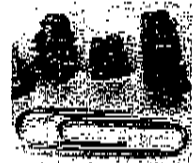
Not all vermiculite is contaminated. However, it is not possible to distinguish Libby vermiculite with the naked eye, and all vermiculite should be handled with care.

## Vermiculite and Zonolite™

- ✓ Vermiculite is a silver-gold to gray-brown mineral that is flat and shiny in its natural state and puffed and dull in its expanded shape.
- ✓ It was discovered near Libby in 1881. In 1919, Dr. Edward Alley found that vermiculite expanded (or "popped") when heated. This created pockets of air that made the material suitable for use as insulation or as a soil amendment.
- ✓ Dr. Alley founded the **Zonolite Company** and developed the mine and processing facility north of Libby, producing expanded vermiculite as **Zonolite™**. **Zonolite™** was lightweight, sturdy, and inexpensive. It was used in everything from construction to school craft projects.

It is estimated that the Libby mine was the source of over 80 percent of all vermiculite sold in the U.S. from 1919 to 1990; and, over its lifetime, it employed more than 1,900 people. W. R. Grace bought the mine and processing facility in 1963 and operated it until 1990.

The asbestos veins in the ore body have contaminated most, if not all, of the material taken from the mine. Milling removed much of the asbestos from the finished product, but a significant amount remained. Because asbestos fibers are so small, this contamination is not evident to the naked eye.



Expanded Vermiculite  
Sample

## How is Asbestos Harmful?

### Asbestos-Related Diseases

Inhalation of asbestos fibers is the primary cause of asbestos-related disease. These fibers are very small and sharp. If they are not expelled through coughing or mucus secretions, they become embedded in the lung. Inhaled asbestos is associated with three major diseases:

- **Asbestosis.** Asbestos causes scarring of lung tissue that eventually restricts one's ability to inhale.
- **Lung Cancer.** Asbestos increases the risk of lung cancer, especially in combination with exposure to tobacco smoke.
- **Mesothelioma.** Asbestos is thought to be the primary cause of this rare and deadly type of cancer of the lung lining and chest wall.



### What If I've Been Exposed to Asbestos?

Almost everyone has been exposed to asbestos to some degree. Air, water, food, and many consumer products may contain small amounts of asbestos. Asbestos is released from natural deposits in the earth and as a result of deterioration of asbestos-containing products.

Harmful effects generally result from continuous exposure over a long period of time or less frequent, but higher concentration, exposures.

If you suspect you have had a significant exposure to asbestos, there are some things you should do:

1. Stop on-going exposures
2. Stop exposure to tobacco smoke
3. Get regular health checkups
4. Get prompt medical attention for any respiratory illness to prevent infections that can attack weakened lungs.

**Not all persons exposed to asbestos will develop asbestos-related diseases.**

### See Your Doctor

Individuals exposed to asbestos should inform their doctor of their history and any symptoms. An exam, including a chest x-ray and a lung function test, may be recommended.

Symptoms may not become apparent until long after exposure. If you have any of the following symptoms, you should consult your doctor without delay:

- ✓ Shortness of breath
- ✓ A cough or a change in cough pattern
- ✓ Blood in the fluid coughed up
- ✓ Pain in the chest or abdomen
- ✓ Difficulty in swallowing or prolonged hoarseness
- ✓ Significant weight loss

### Protect Yourself From Tobacco Smoke!

Eliminating tobacco smoke is the **single most important thing** you can do to avoid or limit the harmful effects of asbestos. Lungs that are damaged from tobacco are much more susceptible to damage from asbestos.



Lung cancer can be caused by either tobacco smoke or asbestos exposure alone, but exposure to *both* multiplies your risk. If asbestos exposure increases your chance of getting cancer by 5 times and smoking increases your chance of getting cancer by 12 times, being exposed to both of them can increase your chance of developing cancer by up to **60 times!**

Evidence shows that quitting smoking will reduce the risk of lung cancer among those exposed to asbestos, perhaps by as much as half after 5 years without smoking. People who were exposed to asbestos at any time should not smoke.

- ✓ If you don't smoke, don't start.
- ✓ If you do smoke, take advantage of assistance in cutting back or quitting.
- ✓ Educate your children on the dangers of smoking.
- ✓ Protect yourself and your children from secondhand smoke.

## Getting the Help You Need

### Medical Services for Asbestos-Related Disease

The Center for Asbestos Related Disease (CARD) in Libby (293-9274) is your local source for information and testing for asbestos-related disease. The CARD can provide:

- ✓ Diagnostic tests (pulmonary function tests and chest x-rays) and diagnosis of asbestos-related disease
- ✓ Referrals to specialists
- ✓ Information on the prevention and treatment of asbestos-related disease

In the future, costs for diagnostic testing may be reimbursed by the fund established by W.R. Grace, as a result of a settlement with EPA.



In 2000 and 2001, ATSDR provided medical screening for more than 7,000 residents or former residents of Libby. The testing was done as part of the **Libby Community Environmental Health Project (LCEHP)**. ATSDR will continue to support the community by:

- ✓ Providing community health education
- ✓ Consulting with agencies working in Libby
- ✓ Continuing to evaluate the health effects of exposure to asbestos
- ✓ Conducting a formal public health assessment

For more information, you can call ATSDR toll free at 1-866-457-2690 ext. 5007

**ATSDR**  
AGENCY FOR TOXIC SUBSTANCES  
AND DISEASE REGISTRY

### Help to Stop Smoking....

**Protecting yourself from tobacco smoke is the single most important health measure you can take.** But, as any smoker knows, it is not easy. Fortunately, there is help available to you locally in the form of guidance, tools, and moral support.



In Libby, your primary source for assistance in stopping smoking is **Libby Community Interagencies**. The **Tobacco Smoke Prevention Coordinator** can be reached at 293-3951.

### Cancer Information

Information about cancer and its treatment is available from the National Cancer Institute's **Cancer Information Service (CIS)** at 1-800-4-CANCER. The CIS provides this service for cancer patients, the public, and health care professionals.

CIS information specialists have extensive training in providing up-to-date and

### Mental Health Services

The asbestos-related illnesses in Libby have caused many people to suffer from feelings of fear, anxiety, anger, and grief. Stress-related illnesses are reported to be on the rise.

**Help is available and people should not be embarrassed to ask for assistance!**

The CARD operates the **CARD Outreach Recovery Assistance (CORA) Program** that provides free mental health services related to Libby's asbestos problems. For more information, call the CORA at 293-9274.



## Asbestos in Your Home

In Libby, the most common types of asbestos are the *tremolite-actinolite series* (from the Grace mine) and *chrysotile* (associated with building products worldwide). Residents may encounter both types and should know what to do to protect their health and property.

EPA is working to determine the extent of mine-related asbestos sources and contamination in Libby. The goal is to sample all Libby residences and businesses in 2002.

As a resident, you are most likely to contact this material in the form of contaminated vermiculite (used as insulation or a soil amendment) or asbestos ore (used as decorative landscape rock or driveway gravel).

If you know or suspect you have these materials on your property, and were not contacted by EPA, please call the EPA Information Center at 293-6194.

### Living With Libby Asbestos Until EPA Removes It

**Inside** - If you have vermiculite in your home, you should assume it is contaminated with asbestos. Sealed in the attic or walls, it poses little threat to you. However, if cracks or other openings are present, fibers can be released which creates a health risk. There is also a risk to residents or others who may be exposed during home repair, renovation, or demolition. You can minimize exposure by:

1. Sealing cracks and openings with caulk.
2. Preventing access to vermiculite-filled attics or crawl spaces.
3. Postponing remodeling that might release vermiculite (like installing light fixtures in ceilings, adding openings to vermiculite-filled walls, or running pipes through vermiculite-filled spaces).
4. Carefully sweeping (after wetting) any vermiculite that filters into living spaces. Homeowners may also consider purchasing HEPA vacuums or air filters.

**Outside** - If you have vermiculite in your garden or asbestos ore in your yard or driveway, you should minimize any disturbance to those materials. This includes digging in the soil and driving, walking, parking, or playing on the ore.

EPA intends to remove vermiculite from homes and businesses in Libby. If disturbance of the vermiculite must occur before EPA can conduct the removal, we recommend hiring a professional for the work.

### Identifying and Handling *Other* Types of Asbestos in the Home

The building industry uses, or has used, thousands of asbestos-containing materials (ACMs) such as roofing and siding, fire protection material, residential building materials, heating and electrical wire insulation, appliance components, sheet flooring, ceiling and floor tile, caulk, and drywall. As late as 1989, the use of asbestos products in the U.S. exceeded 55,000 tons per year.

Asbestos in the materials used in new construction is almost always *chrysotile* asbestos and is not related to the W.R. Grace Mine. With the exception of the contaminated vermiculite discussed above, the biggest asbestos health threat in homes is from older ACMs, such as pipe wrap and furnace insulation, ceiling tiles, ceiling and wall texture, fireproofing, and wallboard. These materials are **easily flaked (friable)** and can be damaged, allowing asbestos fibers to be released. Other ACMs that are less friable and present a smaller hazard are floor tiles, linoleum, asphalt roofing, and asbestos cement siding.



If ACMs in your home are in good shape and are not in danger of being damaged, it may be best to just leave them alone.

Damaged or easily friable ACMs should be handled with care and repaired or removed by professionals. Your best source of information on this subject is the **Asbestos Control Program** in the **Montana DEQ**. They can provide you with information on asbestos, including State requirements for removal, transportation, and disposal and certification of contractors, consultants, and laboratories.

Additional info on asbestos can be found in the EPA booklet entitled ***Asbestos in the Home – A Homeowner's Guide*** and in a pamphlet entitled ***Asbestos in Your Home***, coauthored by the EPA, the American Lung Association, and the Consumer Product Safety Commission.

Both are available in Libby from the EPA Information Center at 501 Mineral Ave. They provide information on sources of asbestos as well as sampling, handling, repairing, and removing asbestos containing materials from your home.

## Licensed/Certified Asbestos Inspectors, Abatement Contractors, Laboratories, Trainers, and Landfills

In 2002, EPA began removing vermiculite insulation from attics and other accessible interior and exterior spaces to reduce the threat to public health from asbestos in Libby. This may include as many as 3,600 homes, and take up to 3 years. The work will be done at no cost to residents.

This action is a result of the investigation and remediation of tremolite-series asbestos from the W.R. Grace Mine, so EPA will **NOT** be removing any other types of asbestos.



### Why Might I Need an Asbestos Professional?

Although EPA is conducting removals of vermiculite insulation, some homeowners may have asbestos inspection, abatement, analysis, or disposal needs that cannot be addressed by EPA. These include:



- ✓ Identification and potential removal of *non-Libby asbestos* (typically pipe wrap, furnace coatings, or siding).
- ✓ Removal of contaminated vermiculite from areas that are not normally accessible (such as interior walls), but may be exposed due to remodeling or construction projects.
- ✓ An immediate removal of contaminated vermiculite that would not be removed quickly enough under EPA's program to meet the owner's needs. An example might be a removal to satisfy a real estate transaction.
- ✓ Identification and potential removal of contaminated vermiculite that may be discovered by the homeowner after EPA has completed its removal program and has left Libby.

## How Do I Find the Person or Information I Need?

The **Asbestos Control Program** at the Montana Department of Environmental Quality (DEQ) maintains a list of all licensed/ certified asbestos inspectors, abatement contractors, and laboratories in Montana. They also maintain a list of asbestos courses approved by the State of Montana for persons interested in training to be an asbestos inspector, worker, contractor/supervisor, or management planner. Finally, they have a list of Class II landfills that accept friable asbestos. **You can obtain the latest copies of the list by calling 444-3490 or by visiting their website at <http://www.deq.state.mt.us/pcd/awm/acpl>.**



- ✓ **DEQ's Asbestos Control Program has the statutory authority** to control and issue project permits, approve course work for accreditation of persons engaged in asbestos related occupations, and accredit persons to engage in asbestos-related occupations.
- ✓ **By definition, an ACM is any material that contains more than 1% asbestos.**
- ✓ **An asbestos abatement project is** the encapsulation, enclosure, removal, repair, renovation, placement in new construction, or demolition of friable or potentially friable ACM in a building, or the transportation or disposal of friable or potentially friable ACM.
- ✓ **Abatement projects require a permit** from the Asbestos Control Program and must be done by persons with a Montana Contractor/Supervisor or Worker accreditation.

***Prevention of the disease and death associated with asbestos exposure  
is the principle factor behind asbestos regulations!***



### CAUTION!

Montana's asbestos rules do not regulate homeowners removing ACMs in their homes. However, transportation and disposal of the asbestos waste is regulated.

It is strongly recommended to use an abatement professional to ensure the work is done properly.

Homeowners who do the work themselves must contact DEQ to ensure they are meeting all requirements, including disposal in a landfill licensed to accept asbestos.

## FINDING AN ASBESTOS SPECIALIST

## Sampling and Analysis

### Sample Collection

EPA has collected thousands of environmental samples in Libby from **air, dust, and solids**. The samples have been collected from the W.R. Grace mine and from residences, businesses, and other properties in Libby and Lincoln County. To ensure health and safety, workers with the potential to contact asbestos are required to wear personal air samplers, and stationary air samplers are set up in various locations. Samples are collected by trained personnel.

- ✓ **Air Samples** – Collected with small, portable pumps worn by individuals, or larger, stationary pumps set up in one location. Air is drawn through a filter at a specific rate for a given time period. Asbestos and other breathable particles are trapped on the filter, which is sent to a lab for analysis.
- ✓ **Indoor Dust Samples** – Collected using a micro-vacuum that sucks dust-sized particles from specific areas (such as a windowsill). Air is drawn through a filter, which is sent for analysis. Results help determine if asbestos is present in the dust and might be stirred up into the breathing space. Asbestos may have settled as dust or been tracked inside on shoes or other items.
- ✓ **Solid Samples (soil, mine waste, or vermiculite)** – Collected from yards, gardens, driveways, and excavations. Yard and driveway samples are generally taken from the upper six inches of soil, while garden soil samples may be deeper. Waste samples are taken from open areas and may be taken from any depth. Vermiculite samples are generally taken from inside homes or other buildings. These solid samples may be taken to determine initial concentrations or to verify that a cleanup has been successful. Solid samples are generally collected using a small trowel or gloved fingers.

### Do Sample Crews Wear Respirators When Sampling Residential Yards?

The use of respirators is complicated and is governed, in part, by OSHA regulations for worker safety. Workers may sometimes wear respirators outside if conditions show that they are potentially exposed to hazardous levels of asbestos and other contamination. As a safety precaution, EPA encourages people who suspect or know that vermiculite is present in their homes or yards to refrain from disturbing the material.







### Analytical Methods

Methods for asbestos analysis vary in complexity and are selected based on data needs. Simplistically, samples are visually identified under a microscope by a trained technician. Observed fibers are viewed at various magnifications and counted according to the rules and capabilities of each method. Depending on the method, results can indicate the type and amount of asbestos present, and also the dimensions of each counted fiber. Methods currently in use or proposed for use in Libby are:

- ✓ **Phase contrast microscopy (PCM)** – The traditional technique for measurement of asbestos fibers in air and upon what many regulations are based (e.g., occupational exposure). Results are often used to estimate health risk from asbestos in air. PCM has limited utility because it cannot differentiate between asbestos and non-asbestos fibers. Thus, PCM use in Libby has been limited to specific purposes, often in conjunction with another analytical technique such as TEM.
- ✓ **Polarized light microscopy (PLM)** – Used to visually estimate the percent of asbestos in bulk samples, such as soil and insulation materials. It can differentiate between asbestos types, but cannot reliably detect asbestos in low concentrations (below 1%). Thus, PLM is being used in Libby as a *screening* method.
- ✓ **Transmission electron microscopy (TEM)** – TEM is more complex than PCM or PLM, and it uses a more sophisticated analytical instrument. TEM can distinguish between asbestos and non-asbestos fibers and asbestos types. It can be used at higher magnifications to identify asbestos fibers too small to be seen by other techniques. In Libby, two TEM methods (AHERA and the more complex ISO 10312) are used, depending on the data need.
- ✓ **Infrared spectroscopy (IR)** – This is a developmental, rapid-screening method, for use in determining the presence of Libby amphibole asbestos in soil at low concentrations. It is needed because PLM is not reliable for screening concentrations less than 1%.
- ✓ **Scanning electron microscopy (SEM)** – SEM is similar to TEM. It is capable of distinguishing asbestos fibers from non-asbestos fibers and is capable of higher magnifications than PCM. Its range of visibility is more limited than TEM. SEM is also limited in its ability for mineral identification.

In Libby, air samples are analyzed by PCM and TEM methods. Indoor dust samples are analyzed by TEM and, on occasion, PLM. Water samples are analyzed by TEM. Solid bulk samples (soil, mine waste, and bulk insulation) are analyzed by PLM, and a respirable fraction is sometimes analyzed by TEM. SEM and IR may be used to analyze bulk samples for low levels of asbestos (concentration estimates below 1%). Method applications are regularly reviewed along with the advancement of new test methods.

### Size Matters

EPA is very interested in the *size* of the asbestos fiber, particularly those longer than 5 microns and thinner than 0.5 microns. These fibers are thought to be more dangerous, because they are more difficult for the body to expel.



Size classes used in the analysis are:

- ✓ **Less than 5 microns**
- ✓ **Between 5 to 10 microns**
- ✓ **Greater than 10 microns**

A micron is too small to see with the naked eye. **There are 25,400 microns in one inch!**

### Quality Assurance

All analysis is conducted by accredited national laboratories following protocols outlined in detailed, site-specific quality assurance plans that are available at EPA's local Information Center.

## Human Health Risk Assessment

### What is a Human Health Risk Assessment?

A risk assessment is a formal, step-by-step, scientific process for quantifying health risks to residents, workers, and recreationalists. It uses standardized tools, formats, and scientifically accepted assumptions. Assessments are led by experienced toxicologists and must undergo rigorous review and scrutiny.

Superfund risk assessments are conducted to evaluate the potential human health risks posed by uncontrolled hazardous substance sites. The process has four steps:

1. **Data collection.** Provides data on site history, exposure potential, and contaminant types and distribution.
2. **Exposure assessment.** Estimates how much and in what ways exposures may occur.
3. **Toxicity assessment.** Addresses the potential of contaminants to cause harmful effects in humans.
4. **Risk characterization.** Integrates the results of the previous steps and calculates the risk to human health if no action is taken.

Each step involves the analysis of specific data or assumptions related to the areas of contamination and potential exposure to the contamination.



### Why Bother with a Risk Assessment?

People may wonder why it is necessary to conduct a risk assessment at a site where almost 200 people are reported to have died from diseases related to the primary contaminant – asbestos. To some, it seems clear that the asbestos from the Grace mine has and will continue to pose unacceptable health risks in Libby unless it is cleaned up.

However, anecdotal evidence is not enough. Site cleanups may cost tens of millions of dollars, and Superfund regulations require that EPA cleanup decisions be based on risk. These actions may be challenged in court by the Potentially Responsible Party (in this case, W.R. Grace), so they must be scientifically defensible. Also, under current law, a material must contain one percent or more asbestos to be considered an asbestos containing material, and cleanups below that limit have not been done.

Risk assessment is an ongoing process and will continue until cleanup decisions are made. In Libby, a *screening level* risk assessment was done under the Emergency Response Program. Although somewhat qualitative, it identified complete exposure pathways and determined if risks were high enough to warrant an immediate response. EPA used it, in conjunction with numerous other tools, to determine the next steps at the site.

As new data are collected, they will be assessed to add to the current understanding of risks at the site in a *Baseline Risk Assessment*. These data will help EPA answer important questions, such as:

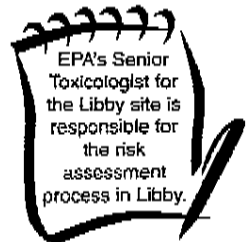
- ✓ **What** concentration of asbestos presents a **health risk**?
- ✓ **Which** sources of asbestos pose the **greatest risk**?
- ✓ **Which** methods of remediation would offer the **greatest risk protection**?

Clearly, the risk assessment process is vital to successful site investigation and cleanup. It helps to ensure that the site cleanup will be effective in reducing the current and future risks at the site to acceptable levels.

## Results of EPA's Preliminary Risk Assessment for Libby, Montana

In December 2001, EPA completed a preliminary, screening-level risk assessment for emergency response activities entitled ***Risk Assessment - Amphibole Mineral Fibers in Source Materials in Residential and Commercial Areas of Libby Pose an Imminent and Substantial Endangerment to Public Health***. EPA also issued a memorandum that presented the rationale for determination of imminent and substantial endangerment to public health from asbestos contamination in various types of source materials in and around Libby. In summary, those findings are:

1. Amphibole asbestos occurs in ore and processed vermiculite from the W.R. Grace mine.
2. Asbestos fibers of this type are hazardous to humans when inhaled.
3. Asbestos fibers characteristic of those from the mine are present in many sources locally. Outdoor sources include yard and garden soil, driveway material, and mine waste materials. Indoor sources include dust and vermiculite insulation.
4. Disturbance of contaminated source materials through common activities by residents or workers can result in exposure to breathable asbestos fibers in air.
5. Concentrations of fibers in air generated by disturbance of source materials may exceed OSHA occupational exposure standards.
6. Estimated excess cancer risks caused by airborne fibers from disturbance of the material exceed EPA's acceptable risk range.



EPA concluded that source materials such as soil and soil-like media, dust, and vermiculite that contain asbestos are a likely source of **ongoing release of hazardous fibers to air** in Libby. In light of evidence of human asbestos exposure and the associated increase in human health risk, it was recommended that EPA take appropriate steps to reduce or **eliminate exposure pathways** to these materials to protect area residents and workers.

The entire risk assessment can be accessed online at <http://www.epa.gov/region8/superfund/libby/risksummary.html>

## EPA's Asbestos Cleanup Activities



### Emergency Response Cleanup Activities

EPA's emergency response work in Libby has focused on removing as many source areas as possible. As of August 2002, EPA had safely and thoroughly cleaned up over 250,000 cubic yards of asbestos-contaminated waste and disposed of them at the W.R. Grace Mine. These cleanups included investigation, excavation, demolition, disposal, and restoration activities. The cleanups have entailed detailed planning and implementation to ensure public and worker safety. The locations of the major cleanups are shown on the back cover.

### Since November 1999, EPA has:

- ✓ Opened the EPA Information Center at 501 Mineral Ave.
- ✓ Investigated the sources of contamination
- ✓ Removed several major source areas
- ✓ Collected samples and assessed data
- ✓ Reconsidered standard protocols for analyzing asbestos samples and assessing risk from asbestos exposure
- ✓ Begun a formal human health risk assessment
- ✓ Tested methods of remediating indoor contamination
- ✓ Added Libby to the National Priorities List
- ✓ Expanded a Superfund investigation to include extensive sampling and analysis and additional risk assessment
- ✓ Authorized and begun removal of vermiculite from Libby homes and businesses
- ✓ Built a special cell in the Lincoln County Landfill for disposal of asbestos wastes

### Vermiculite Removal in Libby Homes and Businesses

In 2002, EPA began removing vermiculite from the interiors and exteriors of Libby homes and businesses. EPA's asbestos abatement contractors are using a vacuum truck to extract the vermiculite inside and backhoes to dig up the material outside. Air sampling is conducted during and after the removal, to ensure that hazardous levels of asbestos are not present.

Residents are being relocated during the interior removals, which are expected to take approximately one week for each house. EPA has developed specific plans for conducting these removals. The work should be completed by 2005. In general, EPA will remove vermiculite and restore the home, interior and exterior, to its pre-removal condition.



### **Non-Emergency Investigation and Remediation Activities**

The Libby Site was proposed to the National Priorities List (NPL) in February 2002. The NPL is a list of hazardous waste sites that are eligible for extensive, long-term cleanup under Superfund. An NPL listing enables a site to receive federal funds for cleanup while EPA seeks to recover costs from the responsible parties. If there are no responsible parties who can pay for the work, the Superfund may be used.



#### **Work in the Community**

- ✓ Libby area soils and insulation will be the focus of EPA's work from 2002 through 2005.
- ✓ EPA's goal is to collect soil samples at every residence and business in Libby (over 3,000).
- ✓ Sampling began in summer 2002 and should be completed by 2003.
- ✓ Results will help establish a site boundary, based on where asbestos is found to pose a risk.
- ✓ EPA will design and implement appropriate cleanup actions.

#### **Work at the Mine Site**

- ✓ Investigations at the mine site will be minimal until the risks in the town are eliminated.
- ✓ In 2003, air blowing off the mine site and spring runoff from the mine will be monitored to obtain data for assessment of the mine.
- ✓ These results will provide additional information to make decisions about potential cleanup actions for the mine.

### **When Cleanup is Complete**

EPA can only sample where contamination is most likely to occur and to be disturbed. This generally means accessible areas indoors and near ground surface outdoors. It is impossible to sample everywhere. Because of this, some isolated pockets of vermiculite may be missed in our cleanup. It is important to be able to recognize vermiculite, should you encounter it in the future.

If you do not know what it looks like, please visit the EPA Information Center to view our samples.

If you know or think you have found vermiculite, do not disturb it! Contact the EPA Information Center or the County Health Department. EPA is currently developing a plan for dealing with these situations in the long-term at no cost to the resident.

**For more information on the work being conducted contact EPA's Information Center at 293-6194.**

## Contacts and Resources

There are many individuals, agencies, and organizations working to solve the asbestos-related problems in Libby. If you have a desire to get involved in the process, need help, or just want to stay informed, there are many opportunities to do that.

### Visit the EPA Information Center

Your primary local contact for information about the Libby Site is the EPA's Information Center at 501 Mineral Avenue (293-6194).

The Information Center has many fact sheets and other publications that are free to the public. The staff can answer many of your questions or direct you to the proper source.

You can also see various samples of vermiculite.

### Printed Resources

A variety of printed resources have been prepared by EPA, or other government agencies, and are available to the public.

Detailed plans, reports, studies, and decision documents are also available.

There are short descriptive pamphlets, fact sheets, Q&As, booklets, brochures, news releases, and news clippings. Stop by the EPA Information Center to view these materials and/or obtain copies.

### Attend a CAG Meeting

Representatives from diverse interests in Libby make up the *Community Advisory Group (CAG)*. The CAG provides a forum for community residents to hear the latest site information, find out about documents that are available for review, hear and make presentations, express concerns, and make recommendations.

EPA, ATSDR, and DEQ support the CAG. Attending the monthly meetings is an excellent opportunity to stay informed. Meetings are usually held the second Thursdays of each month, in the Ponderosa Room of City Hall, from 7 to 9 pm. Call 293-6194 to find out when the next meeting is.

## U.S. Environmental Protection Agency

### General Information on EPA's Work in Libby

EPA Information Center	293-6194
501 Mineral Avenue, Libby, MT 59923	
Community Involvement Coordinator	
Wendy Thoni ( <a href="mailto:thoni.wendy@epa.gov">thoni.wendy@epa.gov</a> )	(866) 457-2690*
Helena, MT	457-5037

### EPA's Emergency Response Activities through 2002

On-Scene Coordinators	(800) 227-8917*
Paul Peronard ( <a href="mailto:peronard.paul@epa.gov">peronard.paul@epa.gov</a> )	(303) 312-6808
Duc Nguyen ( <a href="mailto:nguyen.duc@epa.gov">nguyen.duc@epa.gov</a> )	(303) 312-6509

### EPA's Investigation and Cleanup Issues, 2002 & Beyond

Remedial Project Manager	(800) 227-8917*
Jim Christiansen ( <a href="mailto:christiansen.jim@epa.gov">christiansen.jim@epa.gov</a> )	(303) 312-6748

### Human Health Risk Assessment Issues

Sr. Medical Officer and Toxicologist	
Dr. Aubrey Miller	(303) 312-7023

### Agency for Toxic Substances and Disease Registry (800) 457-2590\*

### Asbestos Related Disease Information

Dan Strausbaugh ( <a href="mailto:strausbaugh.dan@epa.gov">strausbaugh.dan@epa.gov</a> )	457-5007
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### Montana Department of Environmental Quality (406) 444-2544

### Mine Waste Cleanup Bureau

Craig French ( <a href="mailto:cfrench@state.mt.us">cfrench@state.mt.us</a> )	444-3072
<b>Asbestos Control Program</b>	
John Podolinsky ( <a href="mailto:jpodolinsky@state.mt.us">jpodolinsky@state.mt.us</a> )	444-3490

\*toll free phone number, when calling from Montana

### Read the Weekly Q&A in the Local Papers

EPA publishes a Q&A notice in the *Montanian*, *Western News*, and *Tobacco Valley News* each week that answers a question on the work being conducted in Libby.

### TAG Program

EPA provides \$50,000 technical assistance grants (TAGs) to communities. TAGs can be used to hire a technical advisor to act as an independent expert, review site-related technical information, and explain it to community members.

A group applying for a TAG must be nonprofit and incorporated. The group contributes 20 percent of the total project costs to be supported by TAG funds through cash, donated supplies, and/or volunteered services. There may only be one TAG award per NPL site. Please call the EPA Information Center to find out how to get involved in the TAG.

### EPA's Community Involvement Plan

EPA's Community Involvement Plan is a good source of local information on Libby, including demographics, community concerns, and local and national contacts. Stop by the EPA Information Center, if you'd like to see the plan.

### Still Not Getting the Info You Need?

EPA wants your feedback.

Call Wendy Thomi (toll-free 1-866-457-2690) to provide suggestions on how EPA can improve its communication.



### Local Government and Other Contacts

City of Libby	
Mayor	293-2731
Libby School District	
Superintendent	293-8811
Lincoln County Government Offices	
Commission	293-7781 x207
Department of Environmental Health	293-7781 x228
Health Officer	293-7781 x228
Other	
Chamber of Commerce	293-4167
Economic Development Council	293-8406
Lincoln Co. Asbestos Victims Relief Organization	293-5535
W.R. Grace Office	293-3964

### Services

#### Screening for Asbestos Related Disease

Libby Center for Asbestos Related Disease (CARD) 293-9274

#### Mental Health Services

CARD Outreach Recovery Assist. Program (CORA) 293-9274

#### Smoking Cessation Assistance

Libby Community Interagencies 293-3951

### Current and Archived Newspaper Coverage

<i>Montanian</i> , Libby, MT	293-8202
<i>Western News</i> , Libby, MT	293-4124
Online: <a href="http://www.libby.org/WesternNews">www.libby.org/WesternNews</a>	
<i>Tobacco Valley News</i> , Eureka, MT	295-2514
Online: <a href="http://www.tobaccovalleynews.com">www.tobaccovalleynews.com</a>	
<i>Daily Interlake</i> , Kalispell, MT	755-7000
Online: <a href="http://www.dailyinterlake.com">www.dailyinterlake.com</a>	
<i>Missoulian</i> , Missoula, MT	(800) 366-7102
Online: <a href="http://www.missoulian.com">www.missoulian.com</a>	
<i>Spokesman-Review</i> , Spokane, WA	(800) 338-8801
Online: <a href="http://www.spokesmanreview.com">www.spokesmanreview.com</a>	
<i>Seattle Post Intelligencer</i> , Seattle, WA	(800) 542-0820
Online: <a href="http://www.seattlepi.com">www.seattlepi.com</a>	

Unless otherwise noted, all area codes are 406

## CONTACTS AND RESOURCES

## Libby is a Great Place to Live!

Libby is a welcoming community set amid a recreational paradise. Because the W.R. Grace mine and mill are no longer operating, and EPA has cleaned up the major source areas in town, the ongoing asbestos risk to residents is primarily from exposure to vermiculite that may be on their property. EPA is in the process of removing the vermiculite from all affected commercial and residential properties in Libby. The vermiculite is easy to identify, and residents should use care not to disturb it. Vermiculite is most commonly found as insulation in attics, walls, and crawl spaces, or as a soil amendment in the garden. If you are not sure what vermiculite looks like, please visit the EPA Information Center to see samples.

The following items are tips to protect your health and property value:



### Use Caution and Handle With Care

Asbestos is harmful to human health if inhaled, and you should minimize exposures whenever possible. In Libby, the major source areas have been removed, and the remaining exposures are likely to be limited to personal property. See "Dealing with Asbestos in Your Home" and "Finding an Asbestos Specialist" for information on living with asbestos before EPA removes it. If you believe you have vermiculite on your property, and EPA has not contacted you by October 2002, please call the EPA Information Center. You can also visit us to see samples of vermiculite so you know what to look for.

### Don't Miss Your Opportunity for Cleanup

EPA's goal is to remove the vermiculite from all contaminated properties in the Libby area. The cleanups are being done at no cost to the property owner and are voluntary. However, once EPA is finished, there will be no further opportunities for owners to have a cleanup conducted. **Owners who elected not to participate while EPA was in town will have to deal with any vermiculite on their own.**



### EPA Will Get to Your House

EPA's goal is to finish the residential cleanups in three years. Cleanup order is based on the amount of contamination (potential risk) and the home's location. Homes with multiple sources and high levels of Libby asbestos will generally be cleaned up faster than homes with single sources and low levels. Homes where asbestos is readily accessible to people or where a home sale is pending will also be a priority. Finally, a lower priority home may be grouped with a higher priority home to cut cleanup time, ensuring that EPA can meet the cleanup schedule. If you have not been contacted by EPA about your home, please call the EPA Information Center!



## Protect Your Health

Protect your lungs by preventing exposure to asbestos or tobacco smoke. This is especially important if you already have a history of asbestos exposure. If you have been exposed, get regular checkups, adopt healthy habits, and notify your doctor of your exposure and any changes in your lung function. Stay informed. Researchers believe there are new treatments on the horizon. See "Asbestos-Related Health Risks" and "Physical and Mental Health Resources" for more information.



## Remember That Help is Available

There are numerous services available to you to help you with physical or mental health concerns, real estate transactions, and general assistance on asbestos related issues. You also have plenty of opportunity to get involved by attending public meetings, reading EPA Q&A's and other publications, and visiting the EPA Information Center. See "Contacts and Resources" for more information.

Libby is a nice community in a beautiful location. It may be difficult to live with the variety of cleanup actions that are ongoing; but, over the next few years, vermiculite source areas will be cleaned up and residential cleanups will progress. After cleanup, improvements such as the new running tracks at the middle and high schools will be nice amenities for the community's school kids. EPA realizes that sampling and clean-up activities can be disruptive. However, these activities are essential in ensuring that Libby is a safe place to live and that residents do not have to worry about ongoing exposure.

**If you have any questions or concerns, please call the  
EPA Information Center at 293-6194.**

**You can also visit EPA's Libby website at <http://www.epa.gov/region8/superfund/libby/>**

**EPA Region 8,  
999 18th St. Suite 300,  
Denver, CO 80202-2466**

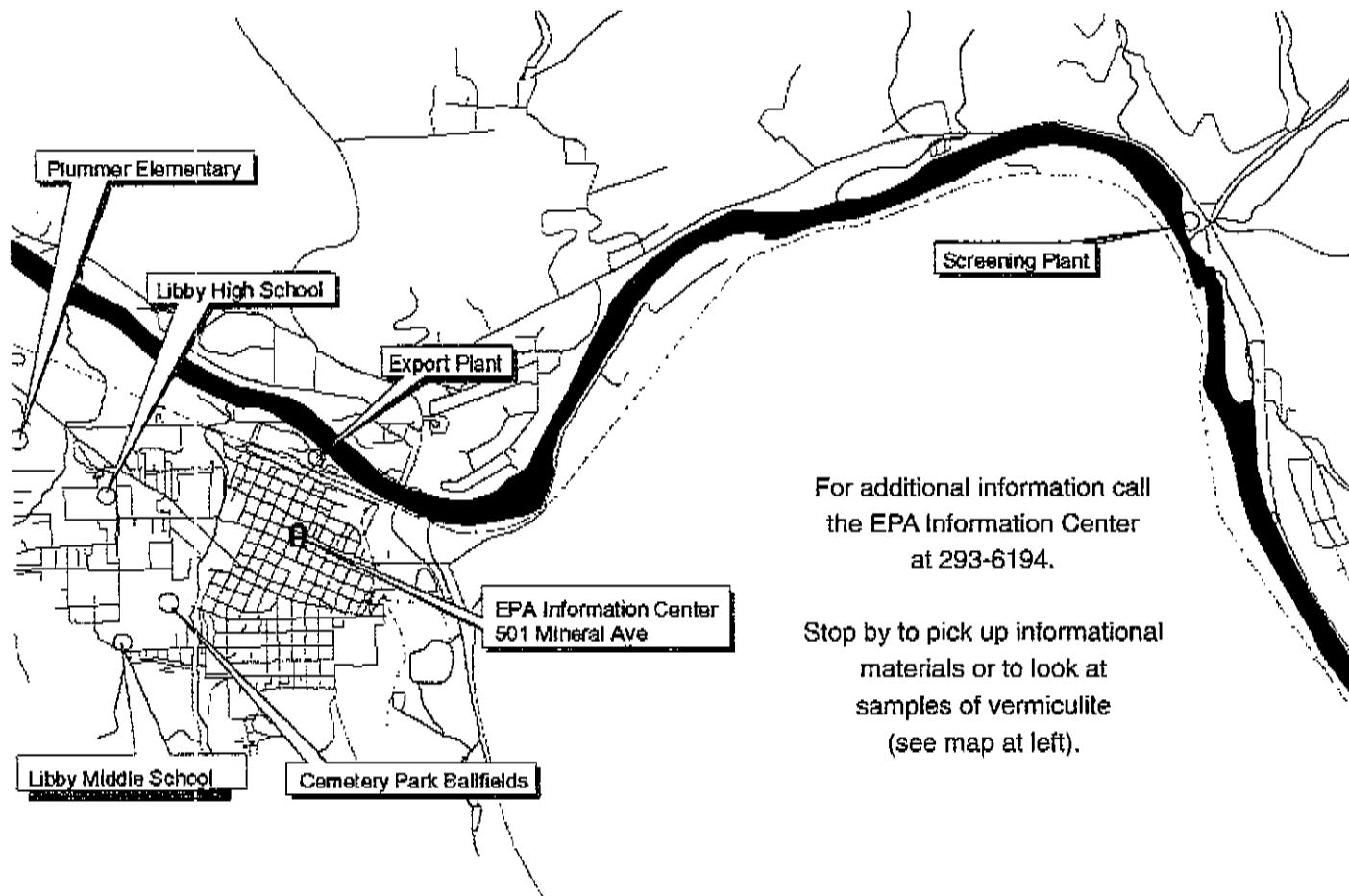
**EPA Region 8, Montana Office,  
10 W. 15th St.; Suite 3200,  
Helena, MT 59626**

**Photo credits:** Cover – Libby, [LibbyMT.com](http://LibbyMT.com); vermiculite, ATSDR. Inside cover – loggers and bikers, [LibbyMT.com](http://LibbyMT.com); children, [LibbyMT.org](http://LibbyMT.org)/Nordicfest; elk, T. Hilmo; trout, J. Counter. Other - cleanup photo, CDM. Original art on cover by Colton Cannon.

# IMPORTANT POINTS TO REMEMBER

## Libby, Montana

### Locations of major cleanups and the EPA Information Center



For additional information call  
the EPA Information Center  
at 293-6194.

Stop by to pick up informational  
materials or to look at  
samples of vermiculite  
(see map at left).

**ATTACHMENT N**


[Home](#)
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[Info for Businesses](#)
[Asbestos & Demolition](#)
[Summer Smog](#)
[Info on Burning](#)
[Air Quality](#)
[About Us](#)
[How To Reach Us](#)
[What Can I Do?](#)
[Links](#)

## HOMEOWNERS — INFORMATION

### Asbestos and demolition

- [What is asbestos?](#)
- [Why is it a problem?](#)
- [How do I know if it's asbestos?](#)
- [It's asbestos: What do I do now?](#)
- [What help can the Clean Air Agency provide?](#)
- [Demolition Information](#)

#### What is asbestos?

Asbestos is a naturally occurring mineral fiber that has been used in more than 3,000 different construction materials and manufactured products. It is commonly found in heating system insulation, decorative spray-on ceiling treatment, vinyl flooring, cement shake siding and a variety of other materials. Some asbestos-containing materials were still being installed in the late 1980s.

The asbestos content of different materials varies according to the product and how it is used. Among those materials with higher concentrations of asbestos are insulating products on heating systems and the backing on sheet vinyl flooring. However, an uncontrolled disturbance of any asbestos-containing material in any concentration may be dangerous to your health!



#### Why is it a problem?

When disturbed, asbestos breaks down into fibers up to 1,200 times thinner than a human hair. When inhaled, they become trapped in lung tissues. Medical research tells us that up to 30 years after inhalation, asbestos fibers can cause lung cancer or mesothelioma, a related terminal cancer of the tissue lining the chest cavity.

Because asbestos is a naturally occurring mineral and has been so widely used in manufactured products, including automobile brake linings, it can be found almost everywhere. Trace amounts are in the air we breathe every day. Most of us have asbestos fibers in our lungs.

On the other hand, there's no known safe level of asbestos exposure. That's why medical, environmental health and regulatory organizations stress the need to protect health by

minimizing exposure to airborne asbestos fibers. This is particularly true when asbestos fibers accumulate at elevated levels. Elevated levels result from uncontrolled disturbances and removals of asbestos-containing materials.



## How do I know if it's asbestos?

Don't guess! Look for an asbestos marking on the product or track the product back to its manufacturer or supplier. If these approaches don't work, submit a small sample for laboratory analysis. Cost is minimal. Laboratories are listed in the yellow pages under "Asbestos-Consulting and Testing."

Ask a laboratory technician to instruct you how to safely take a sample. If you decide not to check for asbestos in a suspected material, you should assume it contains asbestos and treat it accordingly. Here's where to look:

- **Heating Systems**

Many home heating appliances and heating systems contain asbestos insulation or gasket materials. It's common to find it as insulation on old furnaces and boilers, heating ducts and hot water pipes. It's also often found in insulating board materials installed under or around heating appliances.

- **Spray on "Popcorn" Ceilings**

This heavy texture application was a common asbestos-containing ceiling treatment from mid-1960s through the early 1980s. It's extremely fragile and is easily disturbed.

- **Vinyl Flooring**

Sheet vinyl and tiles may contain asbestos if manufactured prior to the mid-1980s. Sheet vinyl can be dangerous to remove because it may be backed with felt containing high concentrations of asbestos. Fibers may be readily released into the air if this backing is disturbed dry. Tiles are generally safer because asbestos fibers are bound up inside the tiles in a petroleum base.

- **Siding**

Cement asbestos-board siding is a very dense, brittle product used primarily in the 1940s, 1950s and into the 1960s.

- **Miscellaneous**

Additional materials that may contain asbestos include "acoustical" ceiling tiles, plaster, stucco, knob-and-tube wire insulation and artificial fireplace logs and ashes.



## It's asbestos! What do I do now?

You've confirmed that it is asbestos. Don't panic. You have good options.

- **Leave it alone**

Remember, asbestos is a problem only if fibers are released to the air.

Asbestos-containing materials that are in good repair and not being disturbed will not release asbestos fibers. So, the safest, easiest and least expensive option may be to leave it alone.

Sometimes, it is possible to work around asbestos without removing it. For example, rather than removing a sheet vinyl floor with asbestos backing, it may be possible to lay the new sheet vinyl on top of the old, or to install a new 1/4-inch plywood underlayment on top of the existing floor and then the new sheet vinyl.

However, if asbestos-containing material is damaged, subject to being damaged or must be disturbed as part of a remodeling project, then you should repair, encapsulate or remove it.

- **Repair & encapsulate**

Sometimes, asbestos can be repaired or encapsulated rather than removed. A few inches of torn, loose or frayed asbestos tape wrap on heating ducts can be sealed with paint or duct tape. Damaged hot water pipe insulation can be covered with specially designed fabric available at safety equipment stores. Similarly, some asbestos applications that are in good condition can be encapsulated to stabilize them and reduce the likelihood of asbestos releases. Encapsulation often is the best option when dealing with insulation on heating systems.

There are two types of encapsulants. Penetrating encapsulants seep into asbestos-containing materials and bond with asbestos fibers. They have little impact on the outward appearance of treated materials. Bridging encapsulant products, such as paint, coat asbestos-containing materials with a more durable surface. They are most commonly used to encapsulate popcorn ceilings and furnace/heat duct insulation.

Homeowners should be aware, however, that although encapsulation seems like an attractive option, especially when dealing with furnace ducts or in sealing popcorn ceilings, there may be less obvious costs and risks involved. For example, painting may make a future removal much more difficult. It also can cause heavy popcorn applications or popcorn that has been water-damaged, to fall off ceilings in clumps.

In cases involving extensive asbestos damage or disturbance, removal may be the more appropriate option.

- **Remove it**

- **Hire an asbestos contractor.**

If you decide to have asbestos removed, we strongly encourage you to use a state-certified asbestos abatement contractor. These experts employ removal techniques

unavailable to do-it-yourself home owners, thereby ensuring asbestos is effectively and safely removed. They also perform air monitoring to ensure that the air in your home meets acceptable standards after the project is completed.

Bonded, insured asbestos abatement contractors are in the yellow pages of your telephone directory under "asbestos." Get several bids and check references before making a selection.

- **Do the work yourself.**

Homeowners may remove asbestos themselves. Many projects can be done safely -- but only if specific work procedures are strictly followed. Some projects, such as the removal of certain types of asbestos insulation on hot water boilers, are very hazardous and should be performed only by an abatement contractor.

Before beginning a removal project, download the "Notice of Single-Family Residence Asbestos Removal" form or call the Clean Air Agency at (206) 343-8800 or (800) 552-3565 and ask for a form.



## What help can the Clean Air Agency provide?

We can help you with procedures that you should follow when taking on a homeowner asbestos project. These procedures are very important if your asbestos project is to be performed safely.

We offer "how-to" homeowner instruction guides for asbestos removal projects, including cement asbestos-board siding, spray-on "popcorn" ceilings, and vinyl flooring. You may download the guides or request a paper copy of a Clean Air Agency guide by calling: (206) 343-8800 or (800) 552-3565.



## Demolition information

If you are planning a demolition of a structure over 120 square feet, you must file a "Notice of Intent" form with the agency. You are also required to have an asbestos survey performed by a certified AHERA building inspector.

Submit the Notice of Intent, a copy of the survey and the filing fee to the agency. (Fees are listed on the Notice of Intent form).

Forms are available on this Web site. If you are a homeowner, visit Homeowners - Forms and Procedures. If you are a contractor, visit Contractors - Forms and Procedures.

Last Updated: Friday, February 14, 2003



**ATTACHMENT O**

## COPY OF TRANSCRIPT

### IN THE UNITED STATES BANKRUPTCY COURT FOR THE DISTRICT OF DELAWARE

In re:  
W.R. Grace & Co., et al.,  
Chapter 11  
  
vs. No. 01-01139 JFK  
(Jointly Administered)  
  
Debtors.

---



DEPOSITION OF SHAWN T. DILLON  
Taken on behalf of the Defendant  
March 3, 2003

- - -

BE IT REMEMBERED THAT, pursuant to the Washington Rules of Civil Procedure, the deposition of SHAWN T. DILLON, was taken before Tia B. Reidt, a Certified Shorthand Reporter, and a Notary Public for the State of Washington, on March 3, 2003, commencing at the hour of 1:12 p.m., the proceedings being reported at 1201 Pacific Avenue, Tacoma, Washington.

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1 busy running a company, so" -- or a business.

2 I have to go out and find my jobs, bid  
3 them, do the work, do the billing. My wife helps me do  
4 the work and whatnot and some of the paperwork, but my  
5 hands are full all the time, so I told her -- I said, "If  
6 you want to pursue it, then it's" -- kind of "The ball is  
7 in your court," so to speak.

8 Q. Okay.

9 A. I've got enough stuff to worry about.

10 Q. Okay. Before this 48 Hours program that your  
11 wife brought to your attention, were you familiar with  
12 vermiculite as an attic insulation?

13 A. No. I -- you know, the first time I went up  
14 there and really saw that stuff, I said, "Hey, that's the  
15 same stuff that's in potting soil." You know, that's --  
16 that's what I looked at and equated it to.

17 I didn't know anything about it as far  
18 as it being harmful. I mean that was news to me. I  
19 probably wouldn't have bought the house if I had known that  
20 it had asbestos in it, to be honest with you. I more than  
21 likely would not have because why have the headache?

22 I didn't know what it was other than --  
23 and I didn't really pay that much attention to it when I  
24 bought the house. I poked my head up there and said,  
25 "Yeah, there's space," you know?

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1 Q. Mm-hm.

2 A. The house had been inspected prior to us buying  
3 it.

4 Q. By an inspector that you picked?

5 A. No.

6 Q. Oh, okay.

7 A. By the seller.

8 Q. Okay.

9 A. So --

10 Q. Did the seller share the results of that  
11 inspection with you?

12 A. I believe. I think he had. Just from memory it  
13 said something about putting Visqueen under the house as a  
14 vapor barrier and that type of thing but nothing of any --  
15 and then there's your standard disclosure of lead-based  
16 paint due to the age of the house, but it didn't say  
17 anything about any asbestos or anything of that nature --

18 Q. Did you and your wife --

19 A. -- or anything -- anything hazardous.

20 Q. Okay. I'm sorry. I didn't mean to cut you off.

21 A. No, that's fine.

22 Q. Did you and your wife keep a copy of that  
23 inspection report?

24 A. Possibly.

25 Q. Okay.

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**ATTACHMENT P**

IN THE UNITED STATES BANKRUPTCY COURT  
FOR THE DISTRICT OF DELAWARE

In re: ) Chapter 11  
W. R. GRACE & CO., et al., ) Case No. 01-01139(JKF)  
(Jointly Administered)  
Debtors. )

COPY

DEPOSITION UPON ORAL EXAMINATION OF  
CLARKE RUSS, M.D.

February 24, 2003 - 10:10 a.m.

Virginia Beach, Virginia

APPEARANCES: REED SMITH, LLP

By: ROSA COPELAND MILLER, Esquire  
Counsel for the Debtors

RICHARDSON, PATRICK, WESTBROOK & BRICKMAN

By: ROBERT S. WOOD, Esquire  
Counsel for 2A1 Claimants

REPORTED BY: Cathy D. Aiello, RPR

Deposition upon oral examination of  
CLARKE RUSS, M.D., taken by and before Cathy D. Aiello,  
RPR, a Notary Public in and for the Commonwealth of  
Virginia at Large, pursuant to notice and agreement,  
commencing at 10:10 a.m., at the Courtyard Marriott,  
3737 Atlantic Avenue, Virginia Beach, Virginia; and this  
in accordance with the Rules of the Supreme Court of  
Virginia, 1950, as amended.

—oOo—

CLARKE RUSS, M.D., called as a witness on  
discovery, having been first duly sworn, was examined  
and testified as follows:

EXAMINATION

BY MS. MILLER:

Q. Good morning, Dr. Russ. We met a little  
earlier. My name is Rosa Copeland Miller, and my firm  
represents W. R. Grace & Company in this matter.

Today I'm going to ask you a series of  
questions, and I need for you to provide responses to  
those questions. If at any time you don't understand the  
question or if you need for me to repeat it or rephrase

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WITNESS Page

CLARKE RUSS, M.D.

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Mr. Wood 109

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it, just let me know.

If you do provide a response to the  
question, then I'm going to assume that you understood it.  
Have you had your deposition taken before?

A. Yes.

Q. In what regard or matter?

A. In regard to expert testimony.

Q. Okay. And would that be in your field of  
specialty?

A. Yes, it was.

Q. And what was that?

A. Orthopedic surgery.

Q. Okay. How long ago was that, sir?

A. I can't tell you. I retired the first day  
of January, 1996, and I gave depositions for several  
years after that and I went to court for several years  
after that.

Q. Okay. All right. Well, let me just give  
you some ground rules as kind of a refresher course  
since it has been a while since you've had your  
deposition taken.

We have a court reporter here, and she's  
going to take down what's said in this room today.  
Because it can be difficult for her to record two people  
talking at the same time, I would ask that you let me

1 in the exhibit. Can you just describe to me what's in  
2 the first photograph?

3 A. Yes.

4 Q. Okay.

5 A. At the base of the photograph is the edge  
6 of a box. It's an old wine bottle box, and that's  
7 adjacent to the opening that goes into the linen closet.  
8 So I've climbed up there and I'm sitting on the edge,  
9 and I'm taking this picture from the edge of the  
10 opening, and I put a yardstick up so that you can tell  
11 the dimensions of the attic.

12 Q. Okay. And is this the --

13 A. And I'm looking east. That's the east  
14 vent, and directly behind me is the existing chimney.  
15 The other chimney was mounted on a platform that was on  
16 these trusses here, on these roof trusses right here.  
17 This one and the one behind it.

18 Q. Okay. Is this the attic above the second  
19 floor or the walk-in attic?

20 A. This is the attic above the second floor,  
21 and in this picture you can also see a little bit of the  
22 reinforcement of the attic which I did.

23 This is one of the 2 x 4s. There's -- let's  
24 see. There are either five or six rows of 2 x 4s running  
25 the length of the attic.

1 Q. Okay.

2 A. That are bolted to each truss with two  
3 4-inch lag bolts.

4 Q. When was this picture taken, Dr. Russ?

5 A. Last week. I had trouble explaining this  
6 to the attorneys that talked to me, and so I thought it  
7 would be helpful for you-all to see the pictures.

8 Q. Okay.

9 A. And I tried to have them blown up so that  
10 there would be some detail in them.

11 Q. Okay. And then we have the second picture  
12 in the --

13 A. I'm not through.

14 Q. Okay.

15 A. There's a piece of 4-inch PVC pipe there.

16 Q. All right.

17 A. That's PVC pipe that we poured vermiculite  
18 in to try to get it out into the area behind the air  
19 conditioning duct, which it was a very difficult job,  
20 and I never took that PVC pipe out of the attic. I just  
21 noticed that.

22 Q. When was that done? Was that during the  
23 time that you and your sons --

24 A. That was during the '70s when we were  
25 installing the Zonolite. And you can see -- just before

1 the vent, you can see part of the air conditioning duct  
2 that comes over at a right angle from the long duct  
3 that's in this dark area to the right of the picture.

4 Q. Okay.

5 A. And this is extra insulation, fiberglass  
6 insulation in the foreground that I left up there.

7 Q. And that's the fiberglass insulation that  
8 you put up after the abatement was done?

9 A. Right. That's vats of 6-inch insulation.

10 Q. And then the second picture of the  
11 three-picture set?

12 A. I'm going to show this one next so you can  
13 understand it.

14 Q. Sure.

15 A. This is the hatch from the linen closet to  
16 the attic above the second floor, and it shows the door  
17 of the linen closet, which is in the center hallway of  
18 the upstairs, my extension cord running up for lighting,  
19 and it shows -- and I peeled back the fiberglass  
20 insulation so you can see. This is plasterboard, that's  
21 a 2 x 4, this is a 2 x 6. You can see the dimensions of  
22 this wood, and I would have filled this space with  
23 Zonolite.

24 Q. And that was also taken last week as well?

25 A. All these pictures were taken last week.

1 Q. Okay.

2 A. Now, this is the last picture that I have  
3 of the overhead attic above the second floor, and in the  
4 upper part of this picture is a truss that I put in, and  
5 you can see the lag bolts and the overlapping of the  
6 2 x 4s. That's one of the trusses I put in. These are  
7 the roof beams here, and this is the fiberglass  
8 insulation. That's an electrical line running across  
9 the attic, and these would be the ceiling beams for the  
10 upstairs with the fiberglass in between them. That's  
11 the space where the Zonolite was, in between these  
12 ceiling beams throughout the attic.

13 These beams are on 16-inch centers. So the  
14 space is 14 and a half inches, and they're 1 x 6s. I'm  
15 sorry. They're 2 x 6s. The roof beams are 2 x 7s. And  
16 those are the beams that are a little darker here that you  
17 see at an angle on the top of the picture.

18 Q. Uh-huh.

19 A. And the space between the ceiling trusses  
20 where the ceiling beams and the roof beams converge is  
21 where the vermiculite was able to get down into the  
22 space behind the insulation in the walk-in attic. I had  
23 trouble describing that, so I thought I better take a  
24 picture of it so people could see it.

25 Q. When we had talked a little bit earlier

## ATTACHMENT Q



1           IN THE UNITED STATES BANKRUPTCY COURT  
2                   FOR THE DISTRICT OF DELAWARE  
3

4   IN RE:                   : Chapter 11  
5   W. R. GRACE & CO.,  
6   et al.,                 : No. 01-01139 (JFK)  
7                   Debtors

8                   -----  
9  
10           Deposition of GLADWIN WORDEN was taken on  
11   Thursday, February 27, 2003, at ReedSmith, LLP,  
12   1301 K Street, N.W., Suite 1100, Washington,  
13   D.C., commencing at 3:30 p.m. before Carol T.  
14   Lucic, Notary Public.

15                   -----  
16  
17  
18  
19  
20  
21   REPORTED BY: Carol T. Lucic

1 to fall out of the walls?

2 A. As I'm taking it out, yes, because there  
3 is a lot of banging and everything. I would  
4 like to think that if I drywalled the basement,  
5 you know, after it was finished I wouldn't have  
6 the problem of it leaking down.

7 Q. Are you concerned that in places like the  
8 kitchen, around the whole house fan, and around  
9 the light fixtures where you see little pieces  
10 of the attic insulation falling that there is  
11 also invisible dust falling more frequently?

12 A. Yes. I mean I surmise that after seeing  
13 the air testing that Versar did. You know, I'm  
14 like there is no dust, you can't see anything,  
15 why are they doing the testing. So I've kind of  
16 come to the conclusion that with the presence of  
17 the kernel there is going to be something in the  
18 air that I can't see.

19 Q. Grace's counsel asked if you had talked to  
20 professionals about the value of your home and  
21 whether it had been decreased.

1 After you learned that there may be  
2 asbestos in the insulation you put into your  
3 home have friends refused to come visit you at  
4 your home?

5 A. Yes. I have had neighbors — actually one  
6 of my best friends, one guy in my wedding has  
7 two kids and his wife is pregnant with their  
8 third, and he flat out told me until you have  
9 that stuff cleaned out or taken out I'm not  
10 coming over, so he hasn't come over.

11 Q. Does your family's and friends' reaction  
12 give you some indication of what someone's  
13 reaction would be if you were to disclose that  
14 the product was in your house if you were trying  
15 to sell it?

16 A. I'm sorry. Can you repeat that?

17 Q. Sure. Do you think if you were trying to  
18 sell your home and you disclosed that to a  
19 potential buyer, that their reaction would be  
20 similar, that they wouldn't be interested  
21 anymore?

1 MR. MUHA: Objection; calls for  
2 speculation.

3 Q. You can answer.

4 A. I'm sorry. Repeat your question.

5 Q. Sure. Let me do this: Would you buy  
6 another home if you knew it had Zonolite attic  
7 insulation in it?

8 A. Okay. No. If I had known that it had  
9 Zonolite attic insulation, knowing what I know  
10 now, I would make sure that it was totally  
11 removed before I purchased the house, and it may  
12 even come to the fact that I would leave the  
13 house. I wouldn't even think twice about buying  
14 the house.

15 Q. Would you recommend to your family or  
16 friends that they should not buy a house that  
17 had Zonolite attic insulation in it?

18 A. Yes. I would tell everyone I could to  
19 stay away from it.

20 Q. Grace's counsel asked if you had plans to  
21 sell your house. Eventually, whether it's five

1 years after you outgrow the house or 60 years  
2 from now when you pass on, the house is going to  
3 change hands. Someone else is going to own it;  
4 is that right?

5 A. Right.

6 Q. So whether you plan on selling it in six  
7 months or somewhere down the road, the house  
8 will eventually be sold?

9 A. I assumed in his questions that I had  
10 immediate plans to sell the house, and I  
11 answered no. The reality to the answer is that  
12 if I have kids and I feel that I've outgrown the  
13 house, I will plan to sell the house. At this  
14 point in time I don't foresee -- I don't have  
15 any plans to sell the house, but I do eventually  
16 plan to move on to a bigger house.

17 Q. Without being able to renovate the attic  
18 do you think you would outgrow that house  
19 quickly if you had a family?

20 A. Yes.

21 Q. You mentioned some brochures that you had

**ATTACHMENT R**

IN THE UNITED STATES BANKRUPTCY COURT  
FOR THE DISTRICT OF DELAWARE

In re: ) Chapter 11  
)  
W.R. GRACE & CO., et al. ) Bankruptcy No. 01-01139 (JFK)  
) (Jointly Administered)  
Debtors. )  
)  
)

**AFFIDAVIT OF PAUL PRICE**

STATE OF MONTANA )  
) ss.  
County of Flathead )

Paul Price, being first duly sworn, deposes and states:

1. I am one of the claimants in the Zonolite Attic Insulation "Science Trial" and I have personal knowledge of the matters herein stated.
2. On or about June 13, 2001, I sold my home.
3. The fact that Zonolite Attic Insulation with asbestos was present in the attic was disclosed to the purchaser.
4. The presence of Zonolite Attic Insulation with asbestos in residential homes is a concern that has received a great deal of publicity and attention in Northwest Montana, where I live and where my home was located.
5. Because of this concern, I was caused to reduce the asking price for my home, as well as the expectation of amount it would sell for.

6. The price I obtained upon the sale of my home was reduced by at least Five Thousand (\$5,000.00) Dollars because of the presence of Zonolite Attic Insulation.

Further, the Affiant sayeth not.

Dated this 7 day of 30<sup>th</sup>, 2003.

Paul R Price  
PAUL PRICE

SUBSCRIBED AND SWORN to before me this 30th day of April, 2003.



Judy A. O'Haire  
Notary Public for the State of Montana  
Residing at: Salisbury, MT  
My Commission expires: July 18, 2006